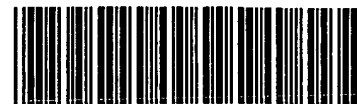


RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/594,064
Source: IFWIP
Date Processed by STIC: 10/3/06

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IFWP

RAW SEQUENCE LISTING

DATE: 10/03/2006

PATENT APPLICATION: US/10/594,064

TIME: 08:43:02

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Output Set: N:\CRF4\10032006\J594064.raw

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4 <110> APPLICANT: Bryan, Janine T.
5     Brownlow, Michelle K.
6     Schultz, Loren D.
7     Janse, Kathrin U.
9 <120> TITLE OF INVENTION: OPTIMIZED EXPRESSION OF HPV 52 L1 IN
10    YEAST
12 <130> FILE REFERENCE: 21571P
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/594,064
C--> 14 <141> CURRENT FILING DATE: 2006-09-25
14 <150> PRIOR APPLICATION NUMBER: PCT/US2005/009199
15 <151> PRIOR FILING DATE: 2005-03-18
17 <150> PRIOR APPLICATION NUMBER: 60/555926
18 <151> PRIOR FILING DATE: 2004-03-24
20 <160> NUMBER OF SEQ ID NOS: 7
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35 agattgttga ctgtcgggtca cccatacttc tctatcaaga acacctctc cggtaacggg 180
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56 gctgacttgg accaattccc attgggtaga aagttcttgt tgcaagctgg tttgcaagct 1440
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61 <211> LENGTH: 503
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69 20 25 30
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71 35 40 45
72 Tyr Phe Ser Ile Lys Asn Thr Ser Ser Gly Asn Gly Lys Lys Val Leu
73 50 55 60
74 Val Pro Lys Val Ser Gly Leu Gln Tyr Arg Val Phe Arg Ile Lys Leu
75 65 70 75 80
76 Pro Asp Pro Asn Lys Phe Gly Phe Pro Asp Thr Ser Phe Tyr Asn Pro
77 85 90 95
78 Glu Thr Gln Arg Leu Val Trp Ala Cys Thr Gly Leu Glu Ile Gly Arg
79 100 105 110
80 Gly Gln Pro Leu Gly Val Gly Ile Ser Gly His Pro Leu Leu Asn Lys
81 115 120 125
82 Phe Asp Asp Thr Glu Thr Ser Asn Lys Tyr Ala Gly Lys Pro Gly Ile
83 130 135 140
84 Asp Asn Arg Glu Cys Leu Ser Met Asp Tyr Lys Gln Thr Gln Leu Cys
85 145 150 155 160
86 Ile Leu Gly Cys Lys Pro Pro Ile Gly Glu His Trp Gly Lys Gly Thr
87 165 170 175
88 Pro Cys Asn Asn Ser Gly Asn Pro Gly Asp Cys Pro Pro Leu Gln
89 180 185 190
90 Leu Ile Asn Ser Val Ile Gln Asp Gly Asp Met Val Asp Thr Gly Phe
91 195 200 205
92 Gly Cys Met Asp Phe Asn Thr Leu Gln Ala Ser Lys Ser Asp Val Pro
93 210 215 220
94 Ile Asp Ile Cys Ser Ser Val Cys Lys Tyr Pro Asp Tyr Leu Gln Met
95 225 230 235 240
96 Ala Ser Glu Pro Tyr Gly Asp Ser Leu Phe Phe Phe Leu Arg Arg Glu
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98 Gln Met Phe Val Arg His Phe Phe Asn Arg Ala Gly Thr Leu Gly Asp
99 260 265 270
100 Pro Val Pro Gly Asp Leu Tyr Ile Gln Gly Ser Asn Ser Gly Asn Thr
101 275 280 285
102 Ala Thr Val Gln Ser Ser Ala Phe Phe Pro Thr Pro Ser Gly Ser Met
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104 Val Thr Ser Glu Ser Gln Leu Phe Asn Lys Pro Tyr Trp Leu Gln Arg

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/594,064

DATE: 10/03/2006

TIME: 08:43:02

Input Set : A:\21571P SEQLIST.TXT

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107          325          330          335
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109          340          345          350
110 Val Lys Lys Glu Ser Thr Tyr Lys Asn Glu Asn Phe Lys Glu Tyr Leu
111          355          360          365
112 Arg His Gly Glu Glu Phe Asp Leu Gln Phe Ile Phe Gln Leu Cys Lys
113          370          375          380
114 Ile Thr Leu Thr Ala Asp Val Met Thr Tyr Ile His Lys Met Asp Ala
115 385          390          395          400
116 Thr Ile Leu Glu Asp Trp Gln Phe Gly Leu Thr Pro Pro Pro Ser Ala
117          405          410          415
118 Ser Leu Glu Asp Thr Tyr Arg Phe Val Thr Ser Thr Ala Ile Thr Cys
119          420          425          430
120 Gln Lys Asn Thr Pro Pro Lys Gly Lys Glu Asp Pro Leu Lys Asp Tyr
121          435          440          445
122 Met Phe Trp Glu Val Asp Leu Lys Glu Lys Phe Ser Ala Asp Leu Asp
123          450          455          460
124 Gln Phe Pro Leu Gly Arg Lys Phe Leu Leu Gln Ala Gly Leu Gln Ala
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128 Lys Lys Lys Lys Val Lys Arg
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133 <211> LENGTH: 1512
134 <212> TYPE: DNA
135 <213> ORGANISM: Human Papillomavirus Type 52
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140 cgattactaa cagtaggaca tccctatatt tctattaaaa acaccagtag tggtaattgt 180
141 aaaaaagttt tagttcccaa ggtgtctggc ctgcaatata gggatattag aattaaattg 240
142 cgggacccta ataaatttgg tttccagat acatcttttt ataaccaga aacccaaagg 300
143 ttggtgtggg cctgtacagg cttggaaatt ggtaggggac agcctttagg tgtgggtatt 360
144 agtgggcatc ctttattaaa caagtttgat gatactgaaa ccagtaacaa atatgctgg 420
145 aaacctggta tagataatag ggaatgttta totatggatt ataagcagac tcagttatgc 480
146 attttaggat gcaaacctcc tataggtgaa cattggggta agggaacccc ttgtaataat 540
147 aattcaggaa atcctgggga ttgtcctccc ctacagctca ttaacagtgt aatacaggat 600
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149 agtgatgtgc ccattgatat atgtagcagt gtatgtaagt atccagatta ttgcaaattg 720
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153 agtggttcta tggtaacctc agaatcccaa ttattttaata aaccgtactg gttacaacgt 960
154 gcgcagggcc acaataatgg catatgttgg ggcaatcagt tgtttgtcac agttgtggat 1020
155 accactcgta gcactaacat gactttatgt gctgagggtt aaaaggaaag cacatataaa 1080
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159 acatacagat ttgtcacttc tactgctata acttgtcaaa aaaacacgcc acctaaagga 1320
160 aaggaagatc ctttaaagga ctatatgttt tgggaggtgg attttaaaga aaagttttct 1380
161 gcagatttag atcagtttcc tttaggtagg aagtttttgt tacaggcagg gctacaggct 1440
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163 gttaaaaggt aa 1512
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171 <223> OTHER INFORMATION: PCR Primer
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178 <212> TYPE: DNA
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209 tctaacaact gacagccagt gggtatgaag agatagttct tgtggaggag gccattgcca 180
210 ttcttccaga accaagggtt ccagagacca aacgttatgt ctcagaagtc ttagttcaac 240
211 ggtctgggtt tgttcaagcc aaagggtctg tgatcaaaga tgttgggtct ttgagtttct 300
212 aaccagaccc gaacatgacc aaacctttag ccatctccag ttggtaaccc acagccatag 360
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214 ttcggtccat agctattgtc tcttacaac agatacctga tgttcgttt agttaacaca 480
215 tagaacccaa cattcggtgg ttagccactt gtgaccccat tcccatgagg tacattggtg 540
216 ttgagaccat tgggtccact gacaggtggt aacgttaact agttgaggca gtaggttctg 600
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RAW SEQUENCE LISTING

DATE: 10/03/2006

PATENT APPLICATION: US/10/594,064

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221 gttccaaggt tgagaccatt gtgacgatga caggttagga gacgaaagaa gggttgaggt 900
222 agaccaaggt accagtggag gcttaggggt aacaagttgt tcggtatgac caacgtttct 960
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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/594,064

DATE: 10/03/2006

TIME: 08:43:03

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date